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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,790	07/10/2003	John E. Holland	3781-26(37.2)	2004

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EXAMINER	
SINGH, ARTI R	

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/616,790	HOLLAND ET AL.	
	Examiner	Art Unit	
	Ms. Arti Singh	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☑ Claim(s) 1-26 is/are pending in the application.

4a) Of the above claim(s) 29-41 is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-26 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date Several
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

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DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-28, drawn to the abrasion resistant sheet and skirt, classified in class 442, subclass 059+.

II. Claims 29-41, drawn to the method of forming the abrasion resistant sheet and skirt, classified in class 427 in various subclasses.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case all the layers could be coextruded at the same time and passed through heated rollers.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Mr. Lewis Rowell on 03/002/05 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-28. Affirmation of this election must be made by applicant in replying to this Office action. Claims 29-41 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the

application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-28 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of copending Application No. 10/359796. Although the conflicting claims are not identical, they are not patentably distinct from each other because they appear to be obvious variants of one another.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 3,661,692 issued to Berczi in view of USPN 6,280,546 issued to Holland et al.

10. Berczi teaches a new fabric which can be used in Hovercraft skirts which are generally made of fabric coated with rubber (column 1, lines 1-4). The fabric that is used is an open weave woven fabric made of yarns that are made of synthetic organic continuous filament yarns such as rayon, nylon, polyester and polypropylene although glass or cotton yarns may also be used. The denier of the yarns is normally at least 210 to 1260 denier (column 1, lines 70-75). The fabrics of the present invention are best suited to be used in Hovercrafts and thus must be coated with an elastomer. Such coated fabrics may be applied by first applying an adhesive which the Examiner is equating to be the elastomeric layer (column 2, line 50 to column 3, line 18). The fabrics according to the present invention are very suitable for use in Hovercraft skirts and for this purpose must be coated with an elastomer. Such elastomer coated fabrics may be made by applying a suitable adhesive to the fabric and subsequently applying a layer of elastomer to the adhesive coated fabric, e.g., by calendering or spread coating. An alternative method which has been used for coating fabrics with elastomer involves forming an adhesive system comprising resorcinol, a formaldehyde donor, e.g., hexamethylene tetramine and a silica reinforcing filler, mixing this with an elastomer and calendering or spread coating the resultant mixture onto the fabric. In general, we prefer to

coat the fabrics with a composition comprising an adhesive resin and a latex of an elastomer and then to apply the elastomer coating, the elastomers of the latex and coating being the same or at least being highly compatible. However certain adhesive compositions containing no latex have also been found to be satisfactory. The adhesive compositions may be applied in the form of a dip to the fabrics, and are preferably applied under pressure, thus forcing the adhesive into the center of the thickness of the fabric. For example they may be applied by the use of padding mangles. Instead of applying an adhesive composition to the woven fabric an adhesive composition may be applied to the cords of the fabric before weaving. Examples of adhesive resins of use in adhesive compositions containing a resin and an elastomer include precondensed, partially pre-condensed or even uncondensed resorcinol-formaldehyde resins (these being strongly preferred), mixtures of resorcinol-formaldehyde resin and one or more amino silanes, mixtures of resorcinol-formaldehyde and epoxy resins, mixtures of resorcinol-formaldehyde, amino silane and blocked isocyanate, mixtures of epoxy resin and blocked isocyanate, mixed resorcinol-formaldehyde and epoxy resins with blocked isocyanate, and polyurethanes. The resins may be introduced in the form of solvent solutions, emulsions or liquid dispersions into the adhesive compositions. When blocked isocyanates are used these may be unblocked after application of the adhesive composition to the fabric. Unblocked isocyanates can also be used but tend to be toxic and not to give as good bonding as the adhesives described above. Latices which may be used in the adhesive compositions include those of natural rubber, sytrene-butadiene rubber, Neoprene rubber, PVC, vinyl-pyridine-styrene-butadiene terpolymer rubber and nitrile and butyl rubbers. Generally the elastomer of the adhesive composition is chosen so as to be the same as the elastomer of the coating subsequently to be applied over the adhesive, sometimes however use of one type of elastomer in the adhesive composition gives good adhesion for a subsequently applied

different type of elastomer coating, e.g., a coating of Hypalon rubber is bonded well by use of an adhesive composition comprising neoprene. After application of the adhesive compositions the coated fabric is dried without any substantial curing, e.g., by heating to the temperature of 230 degrees F. The elastomer coating can then be applied to the adhesive coated fabric e.g., by hot calendering sheets of the elastomer onto the adhesive coated surfaces or by applying it in paste form on a spread coating machine followed by drying. Finally the coated material is vulcanized e.g., by heating at 300 degrees F. The coating of elastomer applied to the fabric may be one of natural rubber of a synthetic, elastomer e.g., styrene-butadiene, neoprene, nitrile, ethylene-propylene, Viton, Hypalon, P.V.C, polyvinylidene chloride and polyurethane elastomers. Blends of two or more such elastomers may also be used. In some cases the two sides of the fabric may be coated with different types of elastomer. This may be useful for material for Hovercraft skirts where different parts of the skirts are subjected to widely differing conditions, the outward facing part of the material, for example, being subject to the effect of sunlight. Neoprene or natural rubber are generally preferred at present. For parts of a Hovercraft skirt exposed to particularly severe abrasion, polyurethane and P.V.C. coatings have been found to be very useful. The coated fabrics may be cut and shaped into the desired form and fitted to a Hovercraft as any part of the skirt (including the fingers) in any suitable manner. They are found to be very wear resistant, and, particularly on larger Hovercraft, have a life very much greater than has been obtained with known fabrics (up to column 3, lines 1-50). Although, Berczi teaches using high performance fiber such as KEVLAR, he does not specifically teach using UHMWP.

Holland et al. disclose a method of making high performance tear resistance puncture or abrasion resistant fabrics made of high performance yarns such as SPECTRA™ (UHMWP) (column 2). Additionally, in both the background section and throughout the reference,

Patentee suggests coating such a laminate with various thermoplastic coatings. Therefore, a person having ordinary skill in the art at the time the invention was made would have found it obvious to have employed a high performance yarn such as SPECTRA™, in fabric of that used by Berczi, motivated by the reasoned expectation that substituting one well known art recognized high performance yarn for the other only involves using what is readily available. Further, a skilled artisan would have sought to use SPECTRA™ as the yarn of choice motivated for the reason of making a composite that would be strong and durable.

With regard to the preferred coating weights and thicknesses, the Examiner takes the position that a skilled artisan would have found it obvious to have used the weights desired by Applicant, since it has been held that discovering an optimum value involves only routine skill in the art. In re Boesch, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980). Further a skilled artisan would only have found it obvious to chose a specific coating weight motivated by the reasoned expectation of not wanting their composite to delaminate.

With regard to the Taber Abrasion resistance Test, it is the Examiner's position that if the chemical and structural limitations are met, then they would also produce the same test results as desired by Applicant.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ms. Arti Singh whose telephone number is 571-272-1483. The examiner can normally be reached on M-F 9-7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ms. Arti Singh
Primary Examiner
Art Unit 1771

Ars 03/07/05